NATIONAL SECURITY INFORMATION UNAUTHORIZED DISCLOSURE SUBJECT TO CRIMINAL SANCTION

## DEGLASSIFIED UPON REMOVAL OF ENGLOSSIN

(i) the characteristic of said filter means comprising a plurality of similar, sequential, overlapping, peaking characteristics, defining respective adjoining frequency bins, [and];

signals output in adjacent frequency bins in the vicinity of the estimated target signal frequency a derived signal characteristic having a peak at a predetermined position in relation to said estimated target signal frequency, means for correcting the estimate of target signal frequency and shifting said derived signal characteristic accordingly, the target signal resulting from said derived signal characteristic being employed in a said tracking loop.]

a first pair of adjoining frequency bins a derived bin characteristic similar to said peaking characteristics,

(ii) from a second pair of adjoining
frequency bins a further, similar derived
bin characteristic,

(iii) the two derived bin characteristics lying symmetrically astride the estimated target signal frequency,

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(F) means for controlling the position of said two derived bin characteristics continuously, and

(G) means for determining the frequency error between the target signal frequency and the centers of said two derived bin characteristics and effectively sliding said two derived bin characteristics to re-center them on the newly determined position of the target signal.--

Cancel claims 2-4;

Claims 5, 6, 9 and 11, line 2, change "2" to

--17--;

Claim 7, line 2, change "2" to --1--;
Claims 7, 9 and 11, line 1, cancel "missile-borne";
line 2, before the comma, insert

--in a missile--:

Please add the following claim:

including a Doppler tracking loop having a speedgate filter in the I.F. signal path and comprising means responsive to the power outputs within said two derived bin characteristics and means for obtaining an algebraic difference of the power outputs to indicate the degree and direction of said frequency error, said frequency error being employed to control the I.F. target frequency to tend to maintain it at a predetermined frequency within the passband of said speedgate filter.--

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